

## A NEW SPECIES OF APPENDICULA (ORCHIDACEAE) FROM MT. MURUD, SARAWAK, BORNEO

Jeffrey J. Wood  
Royal Botanic Gardens  
Kew, Richmond, Surrey TW9 3AE, England

The genus *Appendicula*, although unlikely to be familiar to most growers, is sometimes encountered in a few specialist collections and in botanical gardens. About sixty species are distributed from tropical Asia to the Pacific islands, with the majority occurring in Indonesia, the Philippines, and New Guinea. Most inhabit lowland forest or mid-elevation forest in the mountains, particularly favoring shady areas with high humidity. The leaves are arranged in two rows along the entire length of the stem. These are often twisted at the base, so that the blade is lying in one plane and at right angles to the low intensity light source often available. The flowers are very small and usually of a whitish or greenish hue, although often flushed with pink or purple. In one Bornean species, *A. torta* Blume, these are subtended by colorful overlapping lilac-pink floral bracts. The lip always has a variably shaped, often appendage-like callus situated on the upper surface just above the base. *Appendicula* is distinguished from the closely related *Podochilus* by having six instead of four pollinia.

*Appendicula bilobulata*, described below, is known only from the type material, which was collected in 1967 by Bill Burt, of the Royal Botanic Garden, Edinburgh, on Mt. Murud (2,438 m), the highest mountain in the Malaysian state of Sarawak. The general appearance is that of a *Podochilus*, which I thought it to be on first sight. Examination of the flowers, however, showed it to be a hitherto undescribed species of *Appendicula* related to *A. fractiflexa* J. J. Wood, also recently described from Borneo, and *A. undulata* Blume, which occurs in Peninsular Malaysia, Sumatra, Java, and Borneo. *Appendicula bilobulata* is distinguished from both by the distinctive bilobed lip.

***Appendicula bilobulata*** J. J. Wood, sp. nov.—TYPE: MALAYSIA. Sarawak: route from Ba Kelalan to Mt. Murud, near Camp III, ca. 1740 m, 28 Sep 1967, Burt & Martin B. 5287 (holotype: E! herbarium material only; isotypes: K! spirit material only, SAR! herbarium material only). Fig. 1.

*Appendiculae fractiflexae* J. J. Wood atque *A. undulatae* Blume affinis, sed epichilo labelli bilobulato, hypochilo appendiculo laevi upsiloide basali instructo distinguitur.

Trailing, mat-forming epiphyte. Roots filiform, wiry, elongate, simple, very minutely papillose, or hirsute, produced at intervals along stem. Stem 12–25 cm long, very slender, branching distally, internodes 2–3 mm long, enclosed in persistent leaf sheaths. Leaves 0.7–1 × 0.2–0.3 cm, narrowly oblong-elliptic, minutely obliquely retuse, mucronate, thin-textured, sheaths 2–3 mm long. Inflorescences lateral and/or terminal, one flower open successively; peduncle ca. 5 mm long, enclosed by 2 or 3 tubular, acute to acuminate, non-floriferous bracts; rachis 0.5–ca. 1.2 cm long, fractiflex; floral bracts 2.5–4 mm long, lanceolate, narrowly acuminate. Flowers white, tip of labellum pale purple. Pedicel with ovary 4.8–5 mm



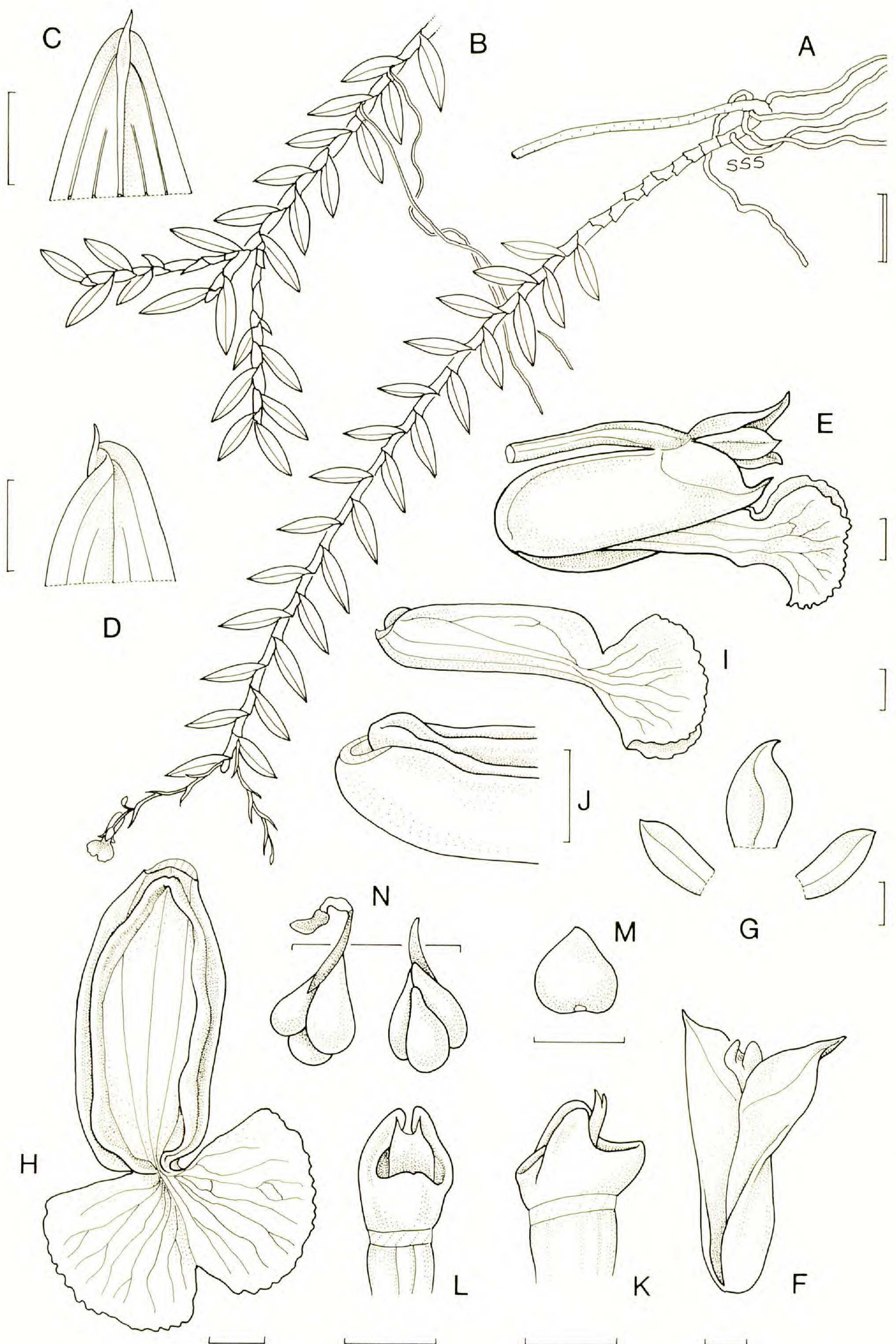


FIG. 1. *Appendicula bilobulata*. A, B. Habit. C. Leaf apex, back view. D. Leaf apex, front view. E. Flower, side view. F. Lateral sepals and column. G. Dorsal sepal and petals. H. Lip, flattened. I. Lip, natural position, side view. J. Base of lip showing callus. K. Pedicel with ovary and column, anther-cap removed, side view. L. Pedicel with ovary and column, anther-cap removed, back view. M. Anther-cap. N. Pollinarium. Scale: single bar = 1 mm; double bar = 1 cm. Drawn by Susanna Stuart-Smith.



long, narrowly clavate, gently curving. Sepals 3-nerved. Dorsal sepal  $3 \times 1.6$ – $1.7$  mm, ovate, concave, acuminate, cuspidate. Lateral sepals  $6 \times 1.8$ – $2$  mm, obliquely oblong, acuminate, cuspidate. Mentum 5 mm long, oblong, obtuse. Petals  $2.4$ – $2.5 \times 0.9$  mm, narrowly oblong, subacute, 1-nerved. Labellum hypochile: 5.8–6 mm long, tubelike, with erect sides, margins fleshy and sulcate, especially distally; provided with a smooth, fleshy, U-shaped basal appendage; labellum epichile 3 mm long, 4.5–5 mm wide across lobules, flabellate, bilobulate, lobules each ca.  $3 \times 2.5$  mm, broadly oblong, rounded, margin minutely irregular. Column 0.5–0.6 mm long; foot  $5 \times$  ca. 0.7–0.8 mm; wings 0.4–0.5 mm long, oblong, obtuse, fleshy; apex truncate; rostellum acute, toothlike; anther-cap  $0.8$ – $0.9 \times 0.9$ – $1$  mm, ovate, cucullate, acute, smooth; pollinia 6, obliquely clavate.

#### LITERATURE CITED

- Seidenfaden, G. 1986. Orchid Genera in Thailand XIII. Thirty-three epidendroid Genera. *Opera Botanica* 89: 135–142.
- Wood, J. J., R. S. Beaman, and J. H. Beaman. 1993. *The Plants of Mount Kinabalu 2. Orchids*, p. 89, fig. 7.